

Claims

The following is a copy of Applicants' claims that identifies language being added with underlining ("____") and language being deleted with strikethrough ("____") or double brackets ([[]]), as is applicable:

1. (Currently Amended) A method comprising the steps of:
 - encoding a video stream in a first compressed format;
 - storing the video stream encoded in the first compressed format in a storage device;
 - retrieving the video stream encoded in the first compressed format from the storage device;
 - decoding the video stream encoded in the first compressed format;
 - encoding the decoded video stream in a second compressed format, the second compressed format determined based on one or more characteristics of the video stream, wherein the first compressed format is a format of lesser computational complexity than the second compressed format;
 - and
 - storing the video stream encoded in the second compressed format in the storage device.
2. (Original) The method of claim 1, wherein the method is implemented by a television set-top terminal.
3. (Original) The method of claim 1, wherein the second compressed format enables a higher compression rate than the first compressed format.

4. (Canceled)

5. (Currently Amended) A method comprising the steps of:

encoding a video stream such that the video stream has a first bit-rate;
storing the video stream having the first bit-rate in a storage device;
retrieving the video stream having the first bit-rate from the storage device;
decoding the video stream having the first bit-rate;
encoding the decoded video stream such that the decoded video stream has a
second bit-rate that is lower than the first bit-rate, the second bit-rate
based on one or more characteristics of the decoded video stream; and
storing the video stream having the second bit-rate in the storage device,
wherein the method is implemented entirely by a television set-top
terminal.

6. (Canceled)

7. (Original) The method of claim 5, wherein the video stream having the first bit-rate is
in a format that requires higher computational complexity.

8. (Original) The method of claim 5, wherein the video stream having the first bit-rate
and the video stream having the second bit-rate are in an MPEG-2 format.

9. (Original) The method of claim 5, wherein the video stream having the first bit-rate
and the video stream having the second bit-rate are in an H.264 format.

10. (Currently Amended) A method comprising the steps of:

receiving a video stream;

compressing the received video stream in a manner that varies based on one or
more characteristics of the received video stream the availability of
computing resources; and

recompressing the compressed video stream in a manner that is responsive to
the availability of the computing resources.

11. (Original) The method of claim 10, wherein the step of recompressing the
compressed video stream comprises:

decoding the compressed video stream; and

encoding the decoded video stream.

12. (Original) The method of claim 10, wherein the computing resources comprise at
least one of an instruction execution resource, bus bandwidth, memory capacity,
storage capacity, and access to storage capacity.

13. (Original) The method of claim 10, wherein the method is implemented by a
television set-top terminal (STT).

14. (Currently Amended) A method comprising the steps of:

receiving a video stream;

compressing the received video stream in a manner that varies based on one or more characteristics of the received video stream; and

recompressing the compressed video stream in a manner that is responsive to one or more characteristics of the compressed video stream.

15. (Original) The method of claim 14, wherein the received video stream is compressed in a manner that is responsive to at least one of a format of the received video stream, a bit rate of the received video stream, a picture size corresponding to the received video stream, a frame rate of the received video stream, a color characteristics of the received video stream, a complexity of the received video stream, or frame types that are included in the received video stream.

16. (Original) The method of claim 14, wherein the compressed video stream is recompressed in a manner that is responsive to at least one of a format of the compressed video stream, a bit rate of the compressed video stream, a picture size corresponding to the compressed video stream, a frame rate of the compressed video stream, a color characteristics of the compressed video stream, a complexity of the compressed video stream, or frame types that are included in the compressed video stream.

17. (Original) The method of claim 14, wherein the step of recompressing the compressed video stream comprises:

decoding the compressed video stream; and
encoding the decoded video stream.

18. (Original) The method of claim 14, wherein the method is implemented by a television set-top terminal (STT).

19. (Currently Amended) A method comprising the steps of:

monitoring consumption of computing resources over an extended time period;
receiving a video stream;
compressing the received video stream in a manner that varies based on one or more characteristics of the received video stream; and
recompressing the compressed video stream at a future time that is responsive to availability of computing resources at the future time.

20. (Original) The method of claim 19, wherein the computing resources comprise at least one of an instruction execution resource, bus bandwidth, memory capacity, storage capacity, and access to storage capacity.

21. (Original) The method of claim 19, wherein the step of monitoring consumption of computing resources comprises monitoring user input.

22. (Original) The method of claim 19, wherein the method is implemented by a television set-top terminal (STT).

23. (Currently Amended) A set-top terminal (STT) comprising:

an encoder configured to compress a video stream in a first compressed format;
a decoder configured to decompress the video stream encoded in the first compressed format; and
an encoder configured to re-compress the decompressed video stream in a second compressed format responsive to one or more characteristics of the compressed video stream, the encoders configured to compress and re-compress and the decoder residing in the STT.

24. (Original) The STT of claim 23, wherein the second compressed format enables a higher compression rate than the first compressed format.

25. (Original) The STT of claim 23, wherein the first compressed format is an MPEG-2 format and the second compressed format is an H.264 format.

26. (Currently Amended) A set-top terminal (STT) comprising:

an encoder configured to compress a video stream such that the video stream has a first bit-rate;
a decoder configured to decompress the video stream having the first bit-rate;
and
an encoder configured to re-compress the decoded video stream such that the recompressed video stream has a second bit-rate that is lower than the first bit-rate, the second bit-rate based on one or more characteristics of the decoded video stream, the encoders configured to compress and re-compress and the decoder residing in the STT.

27. (Original) The STT of claim 26, wherein the video stream having the first bit-rate is in an MPEG-2 format and the video stream having the second bit-rate is in an H.264 format.

28. (Original) The STT of claim 26, wherein the video stream having the first bit-rate and the video stream having the second bit-rate are in an MPEG-2 format.

29. (Original) The STT of claim 26, wherein the video stream having the first bit-rate and the video stream having the second bit-rate are in an H.264 format.

30. (Currently Amended) A set-top terminal (STT) comprising:

an encoder configured to compress the video stream in a manner that varies
[[is]] responsive to one or more characteristics of the received video
stream the availability of computing resources; and
an encoder configured to recompress the compressed video stream in a manner
that is responsive to the availability of computing resources, the encoders
residing in the STT.

31. (Previously presented) The STT of claim 30, wherein the encoder configured to
recompress the compressed video stream is configured to decode the compressed
video stream.

32. (Original) The STT of claim 30, wherein the computing resources comprise at least
one of an instruction execution resource, bus bandwidth, memory capacity, storage
capacity, and access to storage capacity.

33. (Currently Amended) A set-top terminal (STT) comprising:

an encoder configured to compress a video stream in a manner that varies [[is]]

responsive to one or more characteristics of the received video stream;

and

an encoder configured to recompress the compressed video stream in a manner

that is responsive to one or more characteristics of the compressed video

stream, the encoders residing in the STT.

34. (Original) The STT of claim 33, wherein the received video stream is compressed in a manner that is responsive to at least one of a format of the received video stream, a bit rate of the received video stream, a picture size corresponding to the received video stream, a frame rate of the received video stream, a color characteristics of the received video stream, a complexity of the received video stream, or frame types that are included in the received video stream.

35. (Original) The STT of claim 33, wherein the compressed video stream is recompressed in a manner that is responsive to at least one of a format of the compressed video stream, a bit rate of the compressed video stream, a picture size corresponding to the compressed video stream, a frame rate of the compressed video stream, a color characteristics of the compressed video stream, a complexity of the compressed video stream, or frame types that are included in the compressed video stream.

36. (Original) The STT of claim 33, wherein the encoder configured to recompress the compressed video stream is configured to decode the compressed video stream.

37. (Currently Amended) A set-top terminal (STT) comprising:

a module configured to monitor consumption of computing resources over an extended time period;

an encoder configured to compress a video stream compressing the video stream in a manner that varies based on one or more characteristics of the received video stream; and

an encoder configured to recompress the compressed video stream at a future time that is responsive to availability of computing resources at the future time.

38. (Original) The STT of claim 37, wherein the computing resources comprise at least one of an instruction execution resource, bus bandwidth, memory capacity, storage capacity, and access to storage capacity.

39. (Currently Amended) A method comprising the steps of:

storing a video presentation having a first compression format;

transcoding a first portion of the video presentation such that the first portion has a second compression format while a second portion remains in the first compression format, the second compression format responsive to one or more characteristics of the compressed video presentation;

decoding the first portion having the second compression format;

providing the first portion to a user;

decoding the second portion having the first compression format; and

providing the second portion to the user.

40. (Currently Amended) A method implemented by a television set-top terminal, comprising the steps of:
encoding a video stream in a first compressed format, where the first compressed format varies based on one or more characteristics of the video stream;
storing the video stream encoded in the first compressed format in a storage device;
retrieving the video stream encoded in the first compressed format from the storage device;
decoding the video stream encoded in the first compressed format;
encoding the decoded video stream in a second compressed format; and
storing the video stream encoded in the second compressed format in the storage device;
wherein the first compressed format is an MPEG-2 format and the second compressed format is an H.264 format; and
wherein the second compressed format enables a higher compression rate than the first compressed format.